

```
'''QUEST_1: A school has following rules for grading system:
    a. Below 25 - F
    b. 25 to 45 - E
    c. 45 to 50 - D
    d. 50 to 60 - C
    e. 60 to 80 - B
    f. Above 80 - A
    Ask user to enter marks and print the corresponding
grade.'''
```

```
marks = int(input("Enter your marks here: "))
if marks > 80:
    print("Your grade is A")
elif 60 < marks <= 80 :
    print("Your grade is B")
elif 50 < marks <= 60 :
    print("Your grade is C")
elif 45 < marks <= 50 :
    print("Your grade is D")
elif 25 < marks <= 45 :
    print("Your grade is E")
elif marks <= 25 :
    print("Your grade is F")
```

```
Enter your marks here: 100
Your grade is A
```

```
'''QUEST_2: A year is a leap year if it is divisible by 4, except that
years divisible by 100 are not leap years
    unless they are also divisible by 400. Write a program
that asks the user for a year and prints out
    whether it is a leap year or not.'''
```

```
Year = int(input("Enter the year: "))

while Year % 100 == 0 :
    if Year % 400 == 0 :
        print("It is a Leap year.")
        break
    else:
        print("It is not a leap year.")
        break
else :
    if Year % 4 == 0 :
        print("It is a Leap year.")
    else:
        print("It is not a leap year.")
```

```
Enter the year: 1800
It is not a leap year.
```

'''QUEST_3: Write a multiplication game program for kids. The program should give the player ten randomly generated multiplication questions to do. After each, the program should tell them whether they got it right or wrong and what the correct answer is.'''

```
print("Hello and Welcome to the Multiplication Game!.")
print("In This Game, you would be asked to solve 10 multiplicative
questions based on your game level.")
print("Level 1: Numbers upto 20.", "\nLevel 2: Numbers upto 50.", "\nLevel 3: Numbers upto 100.")
print()
Level = int(input("Select the game level(Enter 1/2/3 only): "))
print()
if Level == 1:
    l = 20
if Level == 2:
    l = 50
if Level == 3:
    l = 100
```

```
score = 0
```

```
import random
for i in range (1,11):
    n_1 = random.randint(0,l)
    n_2 = random.randint(0,l)

    print("Question", i,": Solve", n_1, "x", n_2, "=")

    ans = int(input("Enter your answer:"))

    if n_1 * n_2 == ans :
        print("Right!")
        score += 1
        print()

    else :
        print("Wrong!! The correct answer is", n_1 * n_2)
        print()
print("Your Score is:", score)
print("THANK YOU FOR PLAYING!")
```

```
Hello and Welcome to the Multiplication Game!.
In This Game, you would be asked to solve 10 multiplicative questions
based on your game level.
Level 1: Numbers upto 20.
Level 2: Numbers upto 50.
Level 3: Numbers upto 100.
```

Select the game level(Enter 1/2/3 only): 2

Question 1 : Solve $9 \times 44 =$

Enter your answer:396

Right!

Question 2 : Solve $45 \times 47 =$

Enter your answer:69

Wrong!! The correct answer is 2115

Question 3 : Solve $11 \times 10 =$

Enter your answer:110

Right!

Question 4 : Solve $29 \times 0 =$

Enter your answer:0

Right!

Question 5 : Solve $49 \times 22 =$

Enter your answer:69

Wrong!! The correct answer is 1078

Question 6 : Solve $2 \times 8 =$

Enter your answer:16

Right!

Question 7 : Solve $15 \times 16 =$

Enter your answer:240

Right!

Question 8 : Solve $46 \times 37 =$

Enter your answer:69

Wrong!! The correct answer is 1702

Question 9 : Solve $2 \times 45 =$

Enter your answer:69

Wrong!! The correct answer is 90

Question 10 : Solve $0 \times 40 =$

Enter your answer:69

Wrong!! The correct answer is 0

Your Score is: 5

THANK YOU FOR PLAYING!

'''QUEST_4: A jar of Halloween candy contains an unknown amount of candy and if you can guess exactly how much candy is in the bowl then you win all the candy. You ask the person in charge the following: If the candy is divided evenly

among 5 people, how many pieces would be left over? The answer is 2 pieces. You then ask about dividing the candy evenly among 6 people, and the amount left over is 3 pieces. Finally, you ask about dividing the candy evenly among 7 people, and the amount left over is 2 pieces. By looking at the bowl, you can tell that there are less than 200 pieces. Write a program to determine how many pieces are in the bowl.'''

```
for tot_candies in range(200):  
    if tot_candies % 5 == 2 and tot_candies % 6 == 3 and tot_candies %  
7 == 2 :  
        print("Total number of candies in the bowl are", tot_candies)  
Total number of candies in the bowl are 177
```